DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: July 3, 2018	**WEATHER:** Overcast, High ~75 degrees F

Personnel and Visitors Onsite:
Research vessel Methow – CDM Smith: Julee Trump; Geosyntec: Erin Dunbar; Gravity Marine: Mike Duffield, Peter Jenkins; AECOM: Stu Holmes
Research vessel Cayuse – CDM Smith: Jennifer Jones; Geosyntec: Alison Clements; Gravity Marine: Mike Duffield, Maggie McKeon; AECOM: Mark Tauscher

Planned Activity:

- Collect surface sediment samples at Downtown/Upriver (D/U) locations.

Activity Completed:
Tailgate safety meetings were led by AECOM. Topics discussed during the safety meeting included boat traffic, complacency with the upcoming holiday/focus on work, boat orientation (work areas, pinch points, winch lines, AED/first aid), fatigue, hydration, and overhead activities and hazards associated with site conditions. Since the Fourth of July holiday is tomorrow, the river may be crowded and wakes are more likely. J. Trump contributed a reminder to be cognizant of self and equipment decontamination and storage of decontaminated sampling equipment.

J. Trump performed oversight of surface sediment sampling from 08:00 to 17:10 on board the Methow. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- Position check at PH-2 indicated that the vessel GPS was reading within 0.9 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from 1 D/U location near RM 11.8, and another D/U location sample was attempted near RM 18.8 in the D/U reach as summarized below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.
- A rinsate blank was collected

Jennifer Jones performed oversight of surface sediment sampling from 08:00 to 17:00 on board the Cayuse. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- Position check at PH-2 indicated that the vessel GPS was reading within 1.2 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.

At three locations near RM 25, grab samples and probing were conducted in an attempt to collect surface sediment samples. However, no sediment samples were successfully collected, as described further below. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.

Status of Schedule & Priority Work:

- Sampling will continue on July 9, 2018 at Downtown/Upriver locations for sediment and porewater investigations.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):
At SG-B467 (~RM18.8E):

- 3 grabs returned only water with no sediment or too little sediment to sample,
- 2 grabs were washed out with open jaws, and
- 1 grab returned 22 cm sand recovery, but the 200 sieve test showed only 30% fines (sediment was sand).
- Probing with a weighted measuring tape continued ½ way to shore and then down stream along the shoreline from the ½ way to shoreline position. Probing seemed to indicate some spots of boulders/cobbles, and suspected tree/log. Suspected soft sediments were grabbed, but only sand with fines < 35% or empty buckets were recovered. Because water levels have dropped since the D/U sediment reconnaissance, the soft sediment location appeared to be on shore.
- After probing downstream along the shore approximately adjacent to the prior soft sediment grab, AECOM picked two additional locations that appeared to be more depositional within the polygon and closer to the primary position, but still only recovered sand with fines <35%.
- No decisions have been made yet on how to move forward with locations such as this. SG-B429 was at/near the shoreline, and Gravity could only comfortably reach the 50-FT radius.

The Methow does not have a fathometer, so depths were manually measured using a weighted measuring tape. Each grab and probe depth were measured unless the area had additional boat hazards such as pilings, rocks or slopes. Per Gravity, measurements could be taken at one or a few locations and then extrapolated/interpellated to surrounding points if the boat sonar showed a flat or consistently sloped bottom. Depths were being recorded to the nearest 1 FT based on the method accuracy estimation. J. Trump pointed out the FSP specifies that depth readings would be accurate to 0.1 FT, that it is EPA's expectation that this accuracy be achieved by using a fathometer (as specified in the SOP) and recommended that AECOM notify EPA for approval to resolve this issue. It is possible that the Methow may still be filling in for the Tieton when work resumes. EPA notified the Pre-RD group of this deviation from the FSP on 7/3/2018 and the need to obtain 0.1-foot fathometer measurements at grab locations.

- At SG-B480, four grabs were attempted; recovery was very poor due to gravel at location getting stuck in sampler jaws. One grab had recovery of 11 cm, but after sieving it was determined that fines were only 10%. Probing was then initiated, moving laterally from the primary location in 25-foot intervals. The lead line was used for probing the sediment surface when in deep water greater than around 20 feet; an aluminum pole was used in shallower water. Following several probes, a second grab sample was taken and there was 20 cm of recovery; however, only 20% fines upon sieving. Probing was then conducted again moving 25 feet laterally each time. Probed at 32 locations along the length of the polygon and found only hard gravelly and/or hard sand surface. Therefore, a sample was not collected from this location.
- At SG-B479, 5 grabs were collected, with poor recovery again due to rocks in sampler jaws. Probing was then initiated, moving away from the primary location laterally at 25-foot intervals. Probed at 10 locations and reached the end of the polygon, finding only hard surface with rocks and gravel. Therefore, a sample was not collected from this location.
- At SG-B478, 6 grabs were collected with no recovery due to the presence of woody debris in sampler jaws. Probing was then initiated, moving away from the primary location laterally at 25-foot intervals. Probed at 3 locations, until reached an area that felt soft. Collected grab sample with 9 cm recovery. Fines determined to be 10%, so probing initiated. Probed at 7 locations, reached an area that felt soft. Collected grab sample with 20 cm recovery. Fines determined to be 20%. Probed twice, collected another grab: 20 cm recovery and 10% fines. Probed again, collected another grab: 21 cm recovery and retrieved all woody material with less than 5% fines. Probed again, collected another grab with no recovery due to woody material stuck in sampler jaws. Probed another 10 locations, until reached the end of the polygon. Found only hard surface of sand or rocks. Therefore, a sample was not collected from this location.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Methow, sediment samples were collected at the following sampling locations:

- PDI-SG-B429 – within 50-FT radius, ~RM11.8E, silt over silty sand

No sample were collected on the Cayuse due to recovery issues.

Note: Sediment descriptions are simplified and AECOM/Geosyntec provided more detailed sediment descriptions in their sampling notes. Trace components are not included in simplified descriptions unless related to sheen or biota.

Photographs of work were taken throughout the day and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Excess sediment and debris from today's sampling activities was rinsed back into the river per the FSP. No heavy sheen was observed today.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
None observed

Signature: Julee Trump; Jennifer Jones **DATE** July 3, 2018